What is claimed:

1. A method for making a metal surface infused or impregnated composite object comprising:

(a) preparing a pattern with a contour of a desired shape;

(b) applying a release agent on at least a portion of the pattern;

(c) applying a thermal spray material onto the release agent layer;

(d) integrating the thermal spray material layer into a composite object by backing and infusing the sprayed material layer with a resin; and

(e) separating the impregnated composite coated spray material from the release agent coated pattern to produce a sprayed material surface infused composite object.

2. The method of claim 1 wherein step (b) is modified as follows: (b') integrating the thermal spray material layer into a composite object by backing the sprayed material layer with fiber and infusing with a resin.

3. The method of claim 2 where the thermal spray material is a metal.

4. The method of claim 2 where the thermal spray material is a metal matrix ceramic composite.

5. The method of claim 3 wherein the metal is selected from the group comprising steel, stainless

steel, copper, tin, nickel, invar, chrome, tungsten, aluminum, zinc, alloys thereof and compounds thereof.

6. The method of claim 2 wherein the release agent is selected from the group comprising epoxies, urethanes, acrylics and polyvinyl acetates.

7. The method of claim 2 wherein the fiber is selected from the group comprising carbon fiber, glass fiber and nylon fiber, and the resin is an epoxy or prepreg materials.

8. The method of claim 2 wherein in step (c) at least one layer of the thermal spray material selected from the group comprising metals and psuedo alloys is applied to the release agent layer.

9. The method of claim 3 wherein the thickness of the thermal spray metal layer is between 0.0001 and about 3 inches.

10. The method of claim 2 wherein the initial portion of the thermal spray material in step (c) is applied to produce a dense inner layer portion of at least 95% theoretical density.

11. The method of claim 2 wherein the entire spray material layer in step (c) has a porosity between about 5% and about 75%.

12. The method of claim 2 wherein the release agent in step (b) is deposit to a thickness between about 0.0001 inch and about 0.020 inch.

13. The method of claim 2 wherein after step (c), the following steps are added:

(c') encasing the periphery of the pattern with a seal;

(c") dispersing fiber and resin materials within the peripheral seal and onto the thermal spray material layer.

14. The method of claim 13 wherein in step (d) the impregnation or infusion of the resin into at least the outer portion of the deposited material is done by using a vacuum force.

15. The method of claim 13 wherein in step (d), the impregnation or infusion of the resin into at least the outer portion of the deposited metal is done using a mechanical or hydraulic force.

16. The method of claim 2 wherein after step (e), the steps are added:

(e') cleaning the pattern of contaminations; and

(e") repeating steps (a) through (e') at least once.

17. The method of claim 16 wherein after step (c), the following steps are added:

(c') encasing the periphery of the pattern with a seal; and

(c") dispersing fiber and resin materials within the peripheral seal and onto the thermal spray material layer.

18. A thermal spray metal surface infused composite object comprising a solid composite material of fiber and resin in which at least a portion of the resin composite material is impregnated into a porous portion of the sprayed material surface.

19. The metal surface infused composite object of claim 18 wherein the outer portion of the layer spray metal has a theoretical density of between about 25% and about 95%.

20. A metal surface infused composite object made in accordance with the method of claim 1.

21. A metal surface material composite object made in accordance with the method of claim 2.